Method: Thirty six (36) consecutive patients with complete heart block (CHB) following first inferior wall (IW) MI (mean age 59.04 ± 10.6, 28 males), were included in the study. Subjects were thrombolysed with streptokinase (STK) if presented within 12 hours, (n-18).Those with heart rate < 40/minute underwent temporary transvenous pacing.

All patients were given inj. Atropine 1.2 mg IV bolus under continuous ECG monitoring. If the AV conduction did not improve after 30 min, a slow bolus of aminophylline, 240 mg over 10 min. was given & repeated if block did not improve, after a period of 60 min.

Improvement in AV block was defined as CHB converting to sinus rhythm (NSR) with normal PR interval, first degree and second degree AV block.

Result: Five (5) out of 36 (13.9 %) pts. resumed NSR with atropine and all were thrombolysed within 6 hrs. Of the remaining 31, seven pts (22.6 %) showed improved AV conduction after first aminophylline bolus (3 into NSR, 4 into first degree AV block). Another 9 of the 24 pts.(37.5 %) improved after second aminophylline bolus (1 into first degree, 7 into 2:1 block & 1 into 4:1 block).No patient in non-thrombolysed group (n=18) responded to atropine, as compared to 9 pts in aminophylline group.

Five pts (13.88 %) died in hospital, 1 in atropine and 4 in aminophylline group (20% &12.90 % respectively, p=ns).One patient in aminophylline group had sustained ventricular tachycardia on third day, reverted by 50J DC shock.

Age, sex, time of presentation, biochemical parameters, presence of right or posterior wall infarction, left ventricular ejection fraction were not predictor of response to either of the drug. Early thrombolysis was predictor of response to atropine therapy, (5/18 in thrombolysed group v/s 0/18 in non thrombolysed group, p value 0.05).There was no predictor of response to aminophylline in the study group.

Conclusion: More than half of the pts of CHB after IWMI, who are resistant to atropine, may show improvement in AV conduction with aminophylline. Early thrombolysis within 6 hrs is a predictor of response to atropine.

Clinical profile of acute coronary syndrome (ACS) in young patients at our centre

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Background: The majority of acute coronary syndromes occur in >40 years of age group. In last few decades, incidence of myocardial infarction is increasing in younger age group in our country because of increased tobacco use and western lifestyle. The purpose of this study is to assess clinical profile of ACS in young patients compared with those of adult patients.

Material and Methods: We studied 276 patients of ACS in < 40 years age group admitted in our hospital from August 2011 to July 2014.The diagnosis of AMI was based on three criteria consistent with AMI: chest pain, electrocardiographic changes, and typical time related pattern of elevated cardiac enzymes (CKMB, troponin). Risk factors, presenting symptoms, type of ACS, management, complications and In-hospital outcomes in these patients were analyzed and compared with those of elderly patients.

Results: Young patients comprised of 15.54 % of all MI patients in this period. The median age of presentation is 34.6 years. Out of all ACS presentations in Young patients, ST elevation myocardial infarction (STEMI) was the most common presentation in 193 patients (69.92%), while NSTEMI in 56 patients (20.2%) and unstable angina in 27 patients (9.7%). Young patients are more likely to have STEMI compared to their elderly counterparts. Anterior wall myocardial infarction was the most common presentation amongst all STEMI patients. Incidence of myocardial infarction is exceedingly higher in males (94.92%) compared to females. Typical angina was the most common presentation (93.47%) at the time of admission in young patients. Risk factors such as tobacco use (74.25%),family history(72.82%),elevated homocysteine levels(10.14%) are more common in young patients, whereas hypertension(22.10%) and diabetes(11.59%) are less frequent. Prevalence of dyslipidemia is almost same in younger (76.81%) and elderly (78.6%) age group. More than 90% of young MI patients had single vessel disease on coronary angiography. Both Primary angioplasty and thrombolysis had good outcome in <40 years age group. Postprocedure complications are almost negligible (<1%) in young age group. The incidence of in-hospital congestive heart failure, stroke and major bleeding were lowest (<1%) in the youngest age group. Younger patients have lower In-hospital mortality rate (<1%) and shorter length of stay.

Conclusions: In our hospital, 15.54 % of patients with ACS are under the age of 40 years old. The frequency of risk factors in the young patients differs from those in their elderly counterparts. The current management and aggressive risk factor modification are quite good and the overall mortality is lower in young adults with ACS compared to their elder counterparts. Primary preventive measures aimed at preventing young patients from adopting tobacco use should be implemented.

Coronary Artery Ectasia (CAE) as the culprit lesion in patients presenting with acute ST-elevation myocardial infarction

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Background: The incidence of Coronary artery ectasia (CAE)in patients undergoing coronary angiography for acute myocardial infarction (AMI)is not well-known. CAE pathophysiology and association with coronary atherosclerosisrisk factors are not fully established.The objective of this study was to assess the risk factor profile, angiographic profile and therapeutic strategies in patients where ectatic arteries are the culprit lesion in AMI.

Methods: Data was collected from the records of patients undergoing primary PCI for STEMI at Belhoul Specialty Hospital from January 2008 to December 2013, where the angiography profile showed ectatic coronary arteries as culprit vessel.Conventional risk factors for coronary artery disease, angiographic profile and the treatment outcome were assessed for the present study.

Results: There were 12 patients with acute STEMI where the culprit lesion had CAE. Of these, 11 (91.6%) were males, 7(58%) were above 45 years of age. Risk factors analysis showed 11(91.6%) were dyslipidemic, 6(50%) were hypertensive, 3(25%) were diabetic, 5(41.66%) were smokersand 5 (41.66%) had family history of premature CAD. None was obese(BMI<30)and mean BMI was 23.85(95%CI 22.5-25.1). Angiographic profile showed LAD as the culprit vessel in 5(41.6%), and RCA in 7(58.3%). One patient had a history of Kawasaki disease in the past. Of these 12 patients, 8(67%) were treated by PCI, 1(8%) by CABG and 3(25%) medically. There were no deaths, stent thrombosis or clinical restenosis at 30 days and at one year follow up.